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ABSTRACT

In an Ottawa high school, a committee of staff and student representatives explored drug use in the school. A questionnaire was developed to assess student perception of academic performance and extracurricular involvement; students' frequency of drug use during the previous two months for nine categories of drugs; time and place of use and source of drugs; and student opinions of the degree of harmfulness of various drugs and their reasons for using drugs. Questionnaires were completed by 1230 high school students during the 1980-81 school year. Results revealed that alcohol was the most frequently used substance, followed by marijuana, LSD, and cocaine. Use of angel dust, heroin, and solvents was rarely reported. Use of alcohol, marijuana, and LSD increased sharply between grades 9 and 11 but little after that. Friends or relatives were reported to be the most frequent source of drugs, while nearly half of the users had obtained drugs from a dealer at least some of the time. Students rated alcohol and marijuana at least harmful; cigarettes, drugs from a drugstore, cocaine, solvents, LSD, heroin, and angel dust were ranked in a "more" to "most" harmful order. Sex differences in drug use were not statistically significant. Comparisons with earlier studies suggest that high school students in 1970, 1977, and 1981 are in general agreement about the harmfulness of certain drugs. (NRB)

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research for action

SURVEY OF DRUG USE IN AN OTTAWA BOARD HIGH SCHOOL
JANUARY, 1981

Rosemary Bonyun

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SURVEY OF DRUC USE IN AN OTTAWA BOARD HIGH SCHOOL,
JANUARY, 1981

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SURVEY OF DRUG USE IN AN OTTAWA BOARD HIGH SCHOOL,
JANUARY, 1981

INTRODUCTION

In one of Ottawa's high schools early in the 1980-81 school year, a committee including staff and student representatives was set up to explore drug use in the school. Their task included the organization of a drug education week, one feature of which was to be a questionnaire on student drug use. This survey was intended to provide an overall assessment of the extent of the drug problem at the school, as well as an indication of student opinion. Members of the Research Centre were asked for input in the developmental stage of the questionnaire and served as consultants on format and scoring procedures.

The survey, while short enough to be administered easily within one period, included several types of question. First were background questions about academic performance and extracurricular involvement, which were included in an attempt to pinpoint the type of student who is a drug user. The next group of questions concerned the frequency of use during the previous two months of nine categories of drugs, including alcohol. Further items dealt with time and place of use and source of drugs. Students were also asked about their opinions on the degree of harmfulness of various drugs and their reasons for using them.

PROCEDURES

The questionnaire was administered to all students during their first period class on Tuesday of the school's Drug Education Week in January. Standard A answer sheets were used for recording responses. Students were directed not to put their names on the answer sheets but to enter their sex and grade since tabulation was to be done in these groups. Since it was necessary for something to be entered in the name block of the answer

sheet in order for the optical scanning machine to accept it, students were requested to enter any series of five letters they chose. Once the materials were distributed, the teachers remained seated at their desks and a student was designated to collect the completed surveys and take them to the school office at the end of the period. It was hoped that in this way students would feel that their anonymity was secure and would answer honestly.

Of the student body of over 1500 students, about 200 were absent on the day in question and about 80 more failed to receive the questionnaire because their teachers were absent. A few answer sheets without responses were turned in, but a total of 1230 completed answer sheets were processed. After the questionnaires were completed, answer sheets were taken to the Research Centre where they were edited and bundled by analysis group prior to machine scoring and computer analysis.

Within each grade level, students were divided into four groups based on their own assessment of their overall academic performance (the first question on the survey). The groups consisted of students who considered themselves much above average in performance, those who considered themselves somewhat above average, those who felt they were about average and those who said they were below average in scholastic attainment. Answer sheets were sorted by hand into these groups and results tabulated by machine for these four groups and for the combined group at each grade level. Finally, an overall merge of results was performed and responses tabulated by sex.

In order to provide feedback to the committee, staff and students in the school, answer sheets were handled as quickly as possible, although the different levels of merge required several runs through the computer. First results were presented to the school staff at a noon meeting about two weeks after the administration of the questionnaire. Highlights of this report were circulated to the student body through their newspaper.

RESULTS

Drug Usage

Table 1 shows the percentage of students at each grade level who indicated that they have had some experience with each of the nine drugs during the past two months; "prescription" and "non-prescription" refer to drugs bought in a drugstore with and without a prescription, to be used for non-medical purposes. It may be seen from this table that alcohol and marijuana are the most frequently used substances, with alcohol being used by more than twice as many students as marijuana. LSD and cocaine are the next most commonly used drugs, but both are far behind marijuana in popularity. Angel dust, heroin and solvents (glue) were reported as being used by less than three per cent of students in all grades except grade 9.

TABLE 1

PER CENT OF STUDENTS WHO HAVE USED DRUGS
AT LEAST ONCE IN THE LAST TWO MONTHS

Drug	Grade 9 (N=254)	Grade 10 (N=216)	Grade 11 (N=206)	Grade 12 (N=240)	Grade 13 (N=242)
Alcohol	40	58	77	79	78
Marijuana	19	23	39	37	32
LSD	5	7	12	13	8
Cocaine	7	8	5	9	5
Non-prescription	5	5	5	3	4
Prescription	4	3	7	3	3
Angel dust	3	1	2	2	1
Heroin	4	1	1	2	1
Solvents	3	2	3	1	0

This table also shows a sharp increase in the use of alcohol, marijuana and LSD between grade 9 and grade 11, with about twice as high a percentage of grade 11 students as grade 9 students indicating use of each of these substances. Between grade 11 and grade 13, reported use remains virtually constant or even declines.

Table 2 shows the per cent of boys and of girls at each grade level who may be considered to be "regular" users of the nine substances; that is, they indicated that, over the past two months, they used the substance three or four times a month or more often. These groups are considerably smaller than the corresponding ones in Table 1, but generally show the same pattern of change from grade to grade. Differences between boys and girls are not statistically significant. The data on alcohol and marijuana use from Tables 1 and 2 are shown graphically in Figures 1 and 2, respectively.

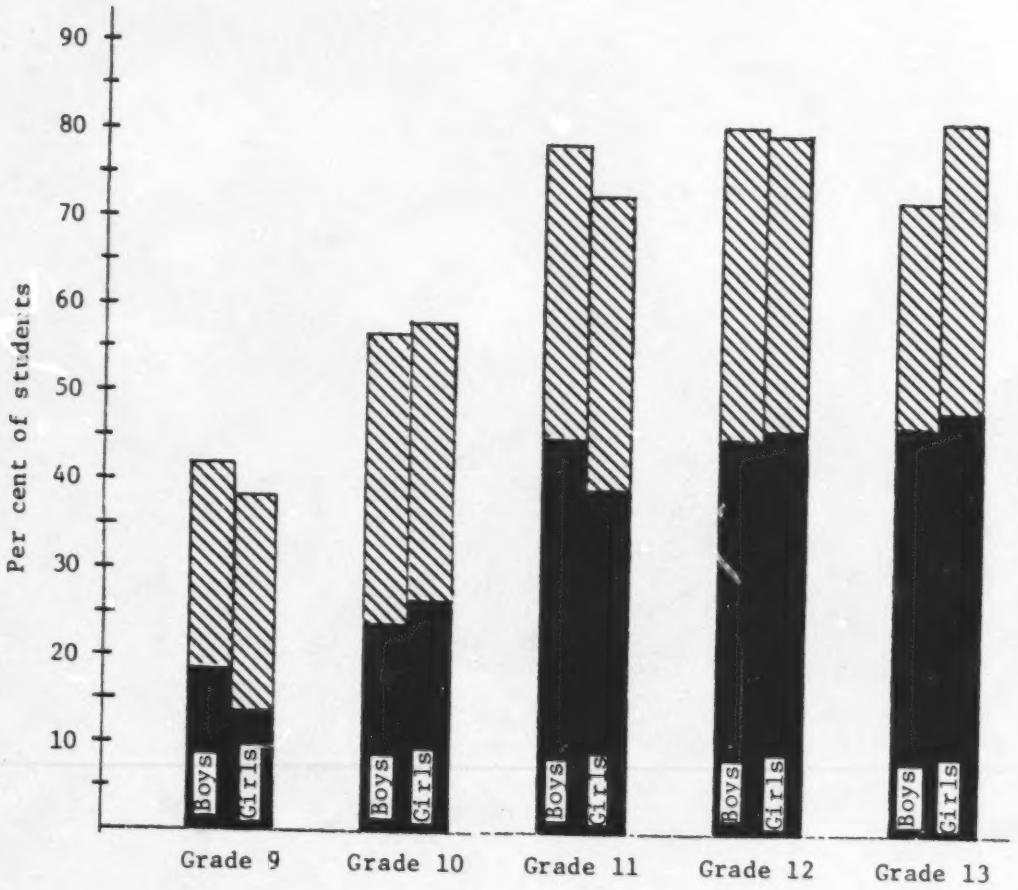
TABLE 2

PER CENT OF STUDENTS WHO ARE REGULAR USERS OF DRUGS
(THREE OR MORE TIMES PER MONTH)

Drug		Grade 9	Grade 10	Grade 11	Grade 12	Grade 13
Alcohol	Boys	18	24	45	45	47
	Girls	13	26	39	46	49
Marijuana	Boys	9	12	23	22	20
	Girls	8	10	18	19	11
LSD	Boys	4	2	5	5	2
	Girls	0	1	1	2	2
Cocaine	Boys	6	4	3	2	1
	Girls	2	2	1	1	1
Non-prescription	Boys	5	1	2	1	0
	Girls	0	2	0	1	0
Prescription	Boys	5	0	3	0	0
	Girls	1	0	1	0	3
Angel dust	Boys	3	1	1	2	0
	Girls	0	0	1	0	1
Heroin	Boys	3	0	1	2	1
	Girls	0	1	0	1	1
Solvents	Boys	4	1	3	0	0
	Girls	0	0	0	0	0

FIGURE 1

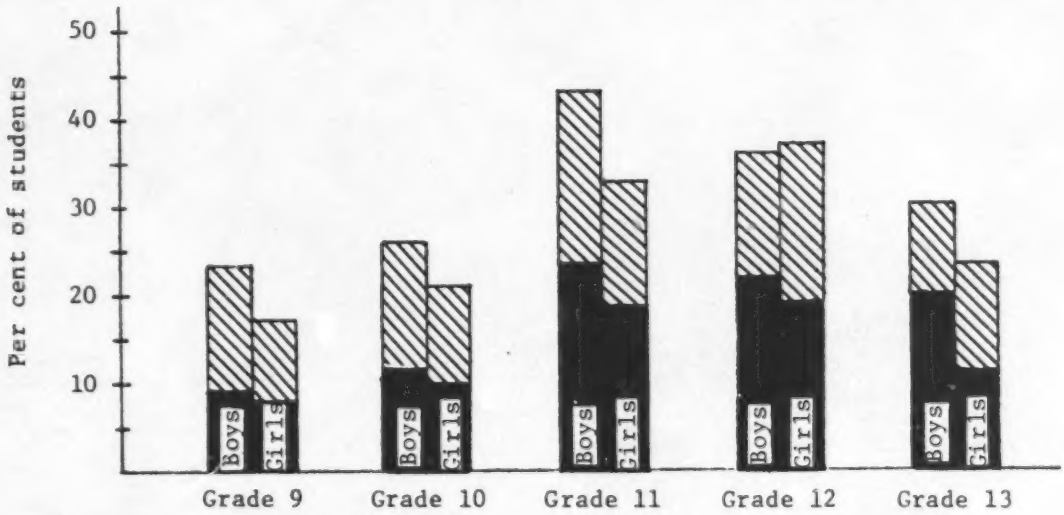
PER CENT OF STUDENTS WHO HAVE USED ALCOHOL IN THE LAST TWO MONTHS*



* The dark area of each bar represents "regular" users - that is, those who used alcohol more than three times per month; the whole bar represents those who indicated that they have used alcohol at least once in the last two months

FIGURE 2

PER CENT OF STUDENTS WHO HAVE USED MARIJUANA IN THE LAST TWO MONTHS*



* The dark area of each bar represents "regular" users - that is, those who used marijuana more than three times per month; the whole bar represents those who indicated that they have used marijuana at least once in the last two months.

Table 3 shows the percentage of students at each grade level who indicated that they smoked cigarettes regularly. Use of cigarettes shows the same pattern of increase as that of alcohol, marijuana and LSD. Moreover, about the same percentage of students indicated that they smoked cigarettes regularly as said they were regular users of marijuana.

TABLE 3

PER CENT OF STUDENTS WHO SMOKE CIGARETTES REGULARLY

	Per cent of students		
	Boys	Girls	Total
Grade 9	12	12	11
Grade 10	12	18	14
Grade 11	18	21	20
Grade 12	19	18	18
Grade 13	16	21	20

Table 4 shows the percentage of drug users, at each grade, who indicated that their use generally occurred during school hours, on weekdays, on weekends or a combination of these. There appears to be a tendency, not statistically significant, for a lower percentage of students in the upper grades than in the lower grades to report use of drugs during school hours. Similarly, at the grade 9 level, 60 per cent of users generally restrict their consumption to weekends, while by grade 13, 75 per cent of users report that their use of drugs usually occurs on weekends or holidays.

TABLE 4

TIMES WHEN DRUGS ARE USED

Time	Per cent of users				
	Grade 9 (N=55)	Grade 10 (N=67)	Grade 11 (N=96)	Grade 12 (N=113)	Grade 13 (N=107)
During school hours	7	6	7	4	2
Weekdays after school hours	9	5	4	4	7
Weekends or holidays	60	64	62	69	75
Combination of the above	24	25	26	23	16

A question about when students first used drugs yielded somewhat ambiguous results. About 10 per cent of the students in grades 9 and 10 appear to have misread the question, since they replied that they first used drugs in grades 11 to 13. Table 5 shows the per cent of drug users at each grade level who indicated that they first used drugs at grades below their present level. These results are difficult to interpret and do not show any clear trends, but they do indicate that a considerable portion of users appear to have started to use drugs before reaching high school, with from five to fifteen per cent reporting having started even in the junior grades.

TABLE 5

TIME OF FIRST USE OF DRUGS

Time of first use	Per cent of users	
	Grade 9 (N=74)	Grade 10 (N=83)
During grades 4 to 6	15	6
During grades 7 or 8	57	48

	Grade 11 (N=115)	Grade 12 (N=133)	Grade 13 (N=124)
During grades 4 to 6	10	7	5
During grades 7 or 8	26	34	19
During grades 9 or 10	54	31	38

Source of Drugs

In a series of four questions, students were asked how frequently they had obtained drugs from friends or relatives, from a doctor or drugstore with and without a prescription, and from a "dealer". Table 6 shows responses to these questions by grade. It may be seen from this table that a drugstore or doctor is a source of drugs for less than 10 per cent of students. Friends or relatives are the most frequent source, while close to half of the users have obtained drugs from a dealer at least some of the time. No particular pattern of change from grade to grade is apparent, but when results to these questions are separated by sex, as in Table 7, the source of drugs appears somewhat different for

girls and for boys. The proportion of girls who say they never obtain drugs from a dealer is higher than the proportion of boys who indicate this. Similarly, the proportion of girls who say they always obtain their drugs from friends or relatives is higher than the proportion of boys who do so. Figure 3 shows responses of boys and girls to two questions about the source of drugs they have used.

TABLE 6

SOURCE OF DRUGS BY GRADE

Source	Per cent of users indicating frequency			
	Never	Occasionally	Often	Always
Friends or relatives				
Grade 9 (N=57)	17	35	16	32
Grade 10 (N=70)	13	32	33	32
Grade 11 (N=97)	15	44	16	26
Grade 12 (N=109)	19	21	11	50
Grade 13 (N=111)	20	36	17	27
Doctor or drugstore without prescription				
Grade 9 (N=59)	91	7	0	2
Grade 10 (N=70)	93	3	1	3
Grade 11 (N=98)	91	4	1	4
Grade 12 (N=114)	96	2	0	2
Grade 13 (N=104)	97	2	1	0
Doctor or drugstore with prescription				
Grade 9 (N=58)	91	7	0	2
Grade 10 (N=69)	93	3	1	3
Grade 11 (N=98)	89	6	2	3
Grade 12 (N=114)	97	2	0	1
Grade 13 (N=102)	94	3	1	2
Dealer				
Grade 9 (N=60)	54	20	18	8
Grade 10 (N=69)	47	30	7	16
Grade 11 (N=100)	44	30	14	12
Grade 12 (N=116)	51	25	12	12
Grade 13 (N=106)	57	23	6	14

TABLE 7

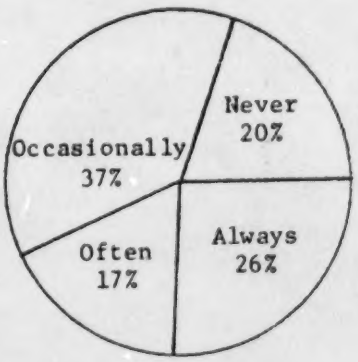
SOURCE OF DRUGS BY SEX

Source	Per cent of users indicating frequency			
	Never	Occasionally	Often	Always
Friends or relatives				
Boys (N=221)	20	37	17	26
Girls (N=225)	15	28	19	38
Dealer				
Boys (N=223)	44	28	12	16
Girls (N=220)	57	24	9	10

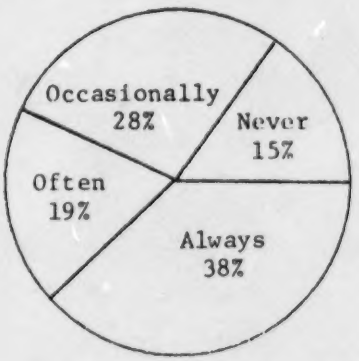
FIGURE 3

SOURCE OF DRUGS

If you used any of these drugs in the last two months, did you obtain them from a friend or relative?



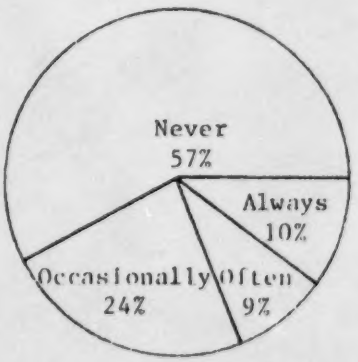
BOYS



GIRLS

If you used any of these drugs in the past two months, did you obtain them from a "dealer"?

BOYS



GIRLS

Opinions about Drugs

Students rated the harmfulness of ten substances (including cigarettes) on a four point scale from "not harmful", which was assigned a value of 1, to "very harmful", with a value of 4. The mean rating for each substance is shown by grade in Table 8 and the overall ratings are illustrated graphically in Figure 4. Students' perceptions of the harmfulness of the given drugs varied slightly from grade to grade; a slight decrease in the perceived harmfulness of marijuana and alcohol paralleled the increased use of these substances in the higher grades. Overall, alcohol and marijuana were seen as least harmful, followed by cigarettes, drugs from a drugstore, cocaine, solvents, LSD, heroin and angel dust, in that order.

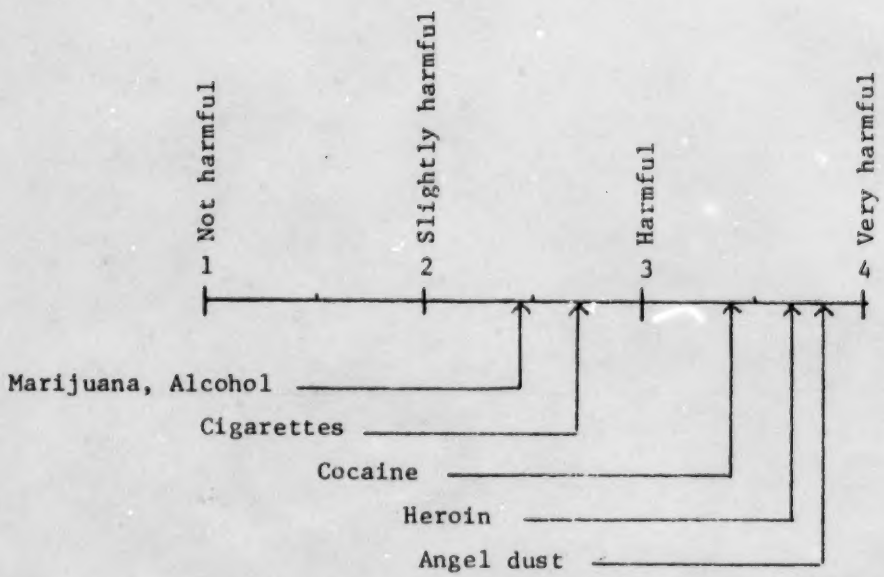
TABLE 8

PERCEIVED HARMFULNESS OF VARIOUS DRUGS

Drug	Mean rating				
	Grade 9	Grade 10	Grade 11	Grade 12	Grade 13
Alcohol	2.7	2.4	2.3	2.4	2.4
Marijuana	2.7	2.7	2.4	2.3	2.2
Cigarettes	2.7	2.8	2.7	2.8	2.8
LSD	3.6	3.7	3.6	3.7	3.7
Cocaine	3.4	3.5	3.4	3.4	3.4
Non-prescription	3.2	3.2	3.1	3.2	3.2
Prescription	3.2	3.2	3.2	3.3	3.4
Angel dust	3.8	3.8	3.8	3.8	3.9
Heroin	3.6	3.7	3.7	3.8	3.8
Solvents	3.4	3.5	3.5	3.6	3.6

FIGURE 4

PERCEIVED HARMFULNESS OF VARIOUS DRUGS



Reasons for Using Drugs

Table 9 shows, by grade, the per cent of drug users who chose each of the given statements as their main reason for using drugs. Altogether, over half the students who use drugs indicated that they did so "for fun or kicks"; about a fifth did so "to relieve or eliminate stress". There was a slight tendency for a higher proportion of grade 9 users to select "for curiosity" and for a lower proportion to select "to relieve or eliminate stress". Similar percentages of boys and girls selected each reason.

TABLE 9

REASONS FOR USING DRUGS

Reason	Per cent of users				
	Grade 9 (N=59)	Grade 10 (N=74)	Grade 11 (N=94)	Grade 12 (N=104)	Grade 13 (N=99)
For fun or kicks	52	47	57	66	55
For curiosity	24	12	10	11	11
To feel at home in a group	10	15	7	8	9
To relieve or eliminate stress	14	26	26	15	25

A small group of students indicated that they had used drugs but had then stopped. The percentages of this group selecting each of the given reasons for stopping are shown in Table 10. Overall, nearly half of the students in this group indicated that they had just been experimenting, while less than ten per cent had been influenced by family or friends in making the decision to stop using drugs.

TABLE 10

REASONS FOR STOPPING USING DRUGS

Reason	Per cent of those who have stopped				
	Grade 9 (N=29)	Grade 10 (N=32)	Grade 11 (N=35)	Grade 12 (N=41)	Grade 13 (N=45)
Realized they were harmfull or addictive	34	50	26	29	25
Just experimenting	28	41	45	52	58
Influenced by family or friends	17	3	6	12	4
Bad experience	21	6	23	7	13

User Characteristics

It has already been noted that the per cent of students using marijuana and alcohol increased between grade 9 and grade 11 and then remained almost constant. Moreover, the differences between boys and girls in drug use were not found to be statistically significant.

As described earlier, students rated their own academic achievement as much above average, somewhat above average, about average and below average. Table 11 shows the number of students at each grade level who rated their achievement in each of these categories. Tables 12 to 14 show the per cent of students in these groups who indicated that they had used alcohol, marijuana and LSD, respectively, at least once in the previous two months. At least at grades 10, 11 and 12, use of these substances appears to be related to the student's perception of his achievement, with drug use being higher among students in the below average group.

TABLE 11

PER CENT OF STUDENTS IN FOUR ACHIEVEMENT GROUPS

Group	Per cent of students in group				
	Grade 9 (N=254)	Grade 10 (N=216)	Grade 11 (N=206)	Grade 12 (N=240)	Grade 13 (N=242)
Much above average	13	12	14	11	14
Somewhat above average	32	43	41	40	45
About average	44	35	38	41	35
Below average	11	10	7	8	6

TABLE 12

PER CENT OF STUDENTS WHO HAVE USED ALCOHOL BY ACHIEVEMENT GROUP

Group	Per cent of students who have used alcohol				
	Grade 9	Grade 10	Grade 11	Grade 12	Grade 13
Much above average	42	50	59	74	71
Somewhat above average	48	53	77	79	84
About average	33	67	81	80	77
Below average	41	62	86	84	60

TABLE 13

PER CENT OF STUDENTS WHO HAVE USED MARIJUANA BY ACHIEVEMENT GROUP

Group	Per cent of students who have used marijuana				
	Grade 9	Grade 10	Grade 11	Grade 12	Grade 13
Much above average	21	0	24	18	23
Somewhat above average	16	17	38	36	32
About average	24	36	43	38	34
Below average	7	33	57	68	40

TABLE 14

PER CENT OF STUDENTS WHO HAVE USED LSD BY ACHIEVEMENT GROUP

Group	Per cent of students who have used LSD				
	Grade 9	Grade 10	Grade 11	Grade 12	Grade 13
Much above average	6	0	7	15	9
Somewhat above average	4	3	10	8	7
About average	6	5	14	12	9
Below average	3	14	23	37	13

At the grade 11 level, where differences among the four achievement groups appear greatest, chi-square tests were performed to determine whether differences were statistically significant. For neither marijuana nor alcohol did the differences reach a significant level.

Other background questions asked students about the number of hours of homework they did each night, the number of hours spent in a part-time job and participation in extracurricular activities. For grade 11 students, cross-tabulations were done between achievement level and the various background question and between these and the items on the use of marijuana, alcohol and LSD. Only one case of a significant relationship was found: as might be expected, a higher percentage of students who felt they were achieving above an average level claimed they were doing an hour or more of homework each night. No significant relationship was found between jobs held (and the resulting availability of money) and the use of alcohol, marijuana and LSD.

For the grade 11 student group for which cross-tabulations were done, opinions about the harmfulness of drugs did differ for users and non-users. As seen in Table 15, the mean rating for marijuana given by users in grade 11 was significantly lower ($p < 0.001$) than that given by non-users. A similar difference existed in the case of alcohol (Table 16).

TABLE 15

MEAN RATING OF HARMFULNESS OF MARIJUANA BY GRADE 11 STUDENTS

	Users	Non-users
Mean	1.92	2.72
SD	0.67	0.85
Number of cases	76	114

$t = 6.866$, $p < 0.001$

TABLE 16

MEAN RATING OF HARMFULNESS OF ALCOHOL BY GRADE 11 STUDENTS

	Users	Non-users
Mean	2.17	2.93
SD	0.80	0.78
Number of cases	155	45

$t = 5.628$, $p < 0.001$

Use of one substance did appear to be related to use of others, based on grade 11 cross-tabulations. Cigarette smokers were much more likely to be users of both marijuana and alcohol (differences significant at the 0.001 level). Users of marijuana were more likely to use alcohol and LSD; in both cases differences were significant at the 0.001 level. However, the same relationship did not exist between the use of alcohol and LSD. The grade 11 cross-tabulations are shown in Tables 17 to 21.

TABLE 17

USE OF MARIJUANA VS USE OF CIGARETTES, GRADE 11

Do you smoke cigarettes regularly?	Number of students using marijuana	
	not at all	at least once
Yes	9	31
No	115	49

$\chi^2 = 30.532$, df = 1, $p < 0.001$

TABLE 18

USE OF ALCOHOL VS USE OF CIGARETTES, GRADE 11

Do you smoke cigarettes regularly?	Number of students using alcohol	
	not at all	at least once
Yes	1	39
No	45	119

$\chi^2 = 11.409$, df = 1, $p < 0.001$

TABLE 19

USE OF ALCOHOL VS USE OF MARIJUANA, GRADE 11

Use of alcohol	Number of students using marijuana	
	not at all	at least once
Not at all	43	4
At least once	82	76

$\chi^2 = 23.737$, df = 1, $p < 0.001$

TABLE 20

USE OF LSD VS USE OF MARIJUANA, GRADE 11

Use of LSD	Number of students using marijuana	
	not at all	at least once
Not at all	125	55
At least once	0	24

$\chi^2 = 42.995$, df = 1, $p < 0.001$

TABLE 21

USE OF LSD VS USE OF ALCOHOL, GRADE 11

Use of LSD	Number of students using alcohol	
	not at all	at least once
Not at all	46	134
At least once	1	23

$\chi^2 = 5.411$, df = 1, $0.02 < p < 0.05$

COMPARISON WITH EARLIER SURVEYS

In May 1970, a survey on drug use was administered to all French- and English-language students in grades 7 to 13 in schools of the Ottawa Board of Education (Halpern and Mori, 1980). Approximately 27 000 students received one of three questionnaires on drug, cigarette and alcohol use. The 1970 survey requested much more detailed information than the one used in 1981 and was aimed at a broader population. However, administration procedures were generally similar and where questions were asked in the same way, some comparisons can be made.

In 1977 a further survey was conducted among students in grades 11 to 13 at five English-language high schools in the Ottawa Board (Morton, 1977). This survey was based on the earlier one, with the wording kept as similar as possible; however, fewer questions were asked in the later questionnaire.

The following table shows the percentages of students at each grade from 9 to 12 in 1970, 1977 and 1981 who indicated that they had used marijuana and LSD at least once in the previous two months. Information on cigarette use is not comparable, since the 1981 survey asked simply "Do you regularly smoke cigarettes?" while earlier ones asked about the number of packs used. Moreover, alcohol was subdivided into beer, wine and liquor on the earlier questionnaires so again results cannot be compared. Different categories for other drugs were used in the two surveys.

TABLE 22

COMPARISON OF THE PER CENT OF STUDENTS WHO HAVE USED DRUGS AT LEAST ONCE IN THE PREVIOUS TWO MONTHS: 1970, 1977 AND 1981

Drug	Grade	Per cent of students using drug		
		1970	1977	1981
Marijuana	9	20	--	19
	10	25	--	23
	11	26	42*	39
	12	29	47*	37
LSD	9	14	--	5
	10	16	--	7
	11	14	7*	12
	12	12	11	13

* 1977 per cent significantly different from 1970 per cent

It may be seen from this table that use of marijuana by grade 11 and 12 students increased significantly from 1970 to 1977, while the 1981 figures show a per cent between the other two. In 1977, use of LSD among grade 11 students had declined significantly from the 1970 level, whereas the 1981 per cents at grade 11 and 12 are very like those in 1970. It should be remembered that 1981 results represent only one school, the 1977 results include five supposedly representative schools and the 1970 results were based on a random sample from all Ottawa schools.

Like the 1981 questionnaire, both 1970 and 1977 surveys asked students to rate a variety of substances as very harmful, harmful, slightly harmful and not harmful. Mean ratings for 1970 and 1981 for five substances are shown by grade in Table 23. In all cases the difference in the mean ratings is 0.2 or less and students were in general agreement about which substances were most harmful. Mean ratings for grades 11 and 12 in 1977 were also very close to the values shown.

TABLE 23

COMPARISON OF PERCEIVED HARMFULNESS OF VARIOUS DRUGS, 1970 AND 1981

Drug	Year	Mean rating			
		Grade 9	Grade 10	Grade 11	Grade 12
Alcohol	1970	2.5	2.4	2.3	2.3
	1981	2.7	2.4	2.3	2.4
Marijuana	1970	2.8	2.6	2.3	2.3
	1981	2.7	2.7	2.4	2.3
Cigarettes	1970	2.9	2.8	2.9	2.9
	1981	2.7	2.8	2.7	2.8
LSD	1970	3.7	3.8	3.7	3.6
	1981	3.6	3.7	3.6	3.7
Solvents	1970	3.5	3.6	3.6	3.6
	1981	3.4	3.5	3.5	3.6

The 1970 and 1981 questions about the time when drugs or alcohol were first used cannot be compared since the formats of the questions were different. Similarly, items about the source of drugs are not comparable as the earlier survey asked about each substance separately. Four reasons for using drugs (for fun or kicks, to relieve or eliminate stress, for curiosity, to feel at home in a group) were ranked in the same order in 1977 and 1981 but percentages of students choosing each reason cannot be compared since "some other reason" was included in the 1977 survey. In 1977 it was found that a higher percentage of males than of females had used marijuana in the previous two months; in 1981 significant differences between boys and girls in marijuana use were not found.

In 1979 the Alcoholism and Drug Addiction Research Foundation carried out a survey at grades 7, 9, 11 and 13 in schools across Ontario. Since this questionnaire asked about drug use over the past twelve months, it is not surprising that figures on usage are higher than those for the 1981 Ottawa survey.

However, it is interesting to note that their findings also indicate that alcohol is the most widely used drug, followed by cannabis, and that usage increased up to grade 11 but shows negligible increases after that. The 1979 results appear to show a higher use of prescription and non-prescription barbiturates, stimulants and tranquilizers than found in the one Ottawa school in 1981. The Addiction Research Foundation also found a significant difference between males and females in their use of tobacco, alcohol, cannabis, glue, LSD and cocaine. Moreover, they found that use of tobacco, cannabis and LSD had increased since a similar survey was carried out in 1977. Based on their sample of over 4000 students at the four grade levels, a close relationship was found between academic performance and drug use, with the less academically successful students showing the most frequent use.

SUMMARY

The drug survey administered in one of Ottawa's high schools early in 1981 has yielded useful data on drug and alcohol consumption by students at the school. The students body as a whole appeared to take the study seriously, while the administration procedure attempted to assure them of the anonymity of their responses. The absentee rate was about 13 per cent, although another 5 per cent failed to receive the questionnaire because of teacher absences. Less than one per cent of the students returned blank answer sheets. Although there may have been some confusion as to whether alcohol was to be included with drugs in certain questions, responses appeared to be quite consistent from one item to another.

Alcohol was by far the most frequently used substance, with two thirds of the total school population having used it at least once in the previous two months. Over 30 per cent of the student body had used marijuana. LSD and cocaine had been used by 9 and 7 per cent, respectively, with angel dust, heroin and solvents (glue) used by less than two per cent of students.

Use of alcohol, marijuana and LSD increased sharply between grade 9 and grade 11 but little after that. It must be remembered, however, that the grade 13 population is likely to be different from that at other grades. Some differences were found between the drug use of boys and of girls, but these did not reach statistically significant levels.

Between 60 and 75 per cent of drug users said their consumption generally took place on weekends or holidays, with less than five per cent of the total student body saying they usually used drugs during school hours. Friends and relatives were found to be the most frequent source of drugs, but close to half of the users had obtained drugs from a "dealer" at least some of the time. Girls seemed to rely more on friends and relatives while a lower proportion of boys said they never used a dealer.

Students' ratings of the harmfulness of drugs varied slightly from grade to grade but there was general agreement that angel dust was the most harmful of the given drugs, followed by heroin, cocaine and cigarettes, with marijuana and alcohol being least harmful.

The main reason for using drugs, selected by half to two thirds of the users, was "for fun or kicks"; of secondary importance were "to relieve or eliminate stress" and "for curiosity". Students who had been users and then stopped most often indicated "just experimenting" as their reason

for stopping, but a quarter to a half of this group also said they realized drugs were harmful or addictive, while few were influenced by family or friends.

There appeared to be some relationship between use of alcohol or marijuana and the student's perception of his academic achievement, but differences were not statistically significant. At the grade 11 level, school marks were found to be related to the amount of homework done but not to questions on jobs or extracurricular activities. Nor were responses to these background question related to drug use. However, it was found that students who smoked cigarettes were more likely to also use alcohol and marijuana and users of marijuana were more likely to use alcohol and LSD. Moreover, at the grade 11 level, users of marijuana and alcohol considered these substances significantly less harmful than did non-users.

Some comparisons with earlier surveys can be made, although caution should be used as questions were not always asked in the same way and populations surveyed are not necessarily comparable. However, certain trends evident in the 1981 data are also noted in an Ottawa survey conducted in 1970, a follow-up of this study done in 1977, and a province-wide survey by the Addiction Research Foundation in 1979.

The per cent of students at grades 9 and 10 who had used marijuana at least once in the previous two months was found to be very similar in 1981 to figures reported for 1970. Percentages at grades 11 and 12 were somewhat higher in 1981, but not as high as those found in 1977. At the grade 11 level, LSD showed a decrease in use between 1970 and 1977, but 1981 figures are similar to those from 1970.

Ottawa students in 1970, 1977 and 1981 were in general agreement about the harmfulness of certain drugs. Moreover, several reasons for using drugs or for having stopped using them seemed to be ranked in the same order in both 1977 and 1981.

All the surveys mentioned above report that alcohol is the most widely used drug, followed by marijuana, and all show increases in the use of these substances between grade 9 and grade 12. Differences between boys' and girls' use of drugs, found in 1977 and by the Addiction Research Foundation, did not reach significant levels for the 1981 group. Although there appeared to be some relationship between academic performance and drug use for the school surveyed this year, differences were not found to be statistically significant, as reported by the Addiction Research Foundation for their larger sample from 1979.

As with any survey, particularly one dealing with a sensitive area like drug use, the reliability of results may be questioned. However, the general agreement of the present data with other studies carried out over the past decade and with staff perceptions of the situation in the school leads one to believe that this questionnaire has provided fairly accurate information on drug use within this particular school. It is hoped that the information will be useful to those involved in setting up drug education and counselling services, and that the experience of the one school will demonstrate the feasibility of carrying out and analyzing such a survey within a fairly short period of time.

REFERENCES

ALCOHOLISM AND DRUG ADDICTION RESEARCH FOUNDATION. *Survey - Alcohol and Drug Use among Ontario Students.* News release, Toronto, November 22, 1979.

HALPERN, G. and Mori, G. *The Ottawa Drug Survey - Univariate Results.* Research Report 70-02, Ottawa, Ottawa Board of Education, 1970.

MORTON, R.L. *Survey of Alcohol, Drug and Cigarette Usage among Students in Grades 11 - 13, Ottawa: 1970 and 1977.* Research Report 77-15, Ottawa, Ottawa Board of Education, 1977.